

**NWCG Smoke Managers Subcommittee
Conference Call
June 30, 2015**

Roll Call: (Please let Ursula know if you were on the call but not listed.)

Mike Broughton, Retired, Colorado/US Fish & Wildlife Service (former Chair)
Claudia Standish, New Mexico/BLM State Office (Vice-Chair/acting Chair)
Ursula Parker, California/Butte County AQMD (Secretary)
Rick Gillam, Georgia/U.S. EPA, Southeast Region
Brian Bohlmann, Wyoming/Dept of Environmental Quality
Joe Smith, Wyoming /Dept of Environmental Quality
Steve Clezie, Idaho /USFS, Sawtooth Forest
Colleen Campbell, Colorado/Colorado Air Pollution Control
Gary Arcemont, California/San Luis Obispo APCD
Debra Harris, California/North Coast Unified AQMD
Dan Chan, Georgia/Forestry Commission
Jim Brenner, Florida/Forest Service
Tammy Egan, Florida Dept of Environmental Protection
Diana Hinson, Oklahoma Dept of Environmental Quality
Dan Washington, Utah/BLM Eastern Great Basin Coordination Center
Pat Brewer, Colorado/Park Service, Denver
Tim Allen, Colorado/USFWS
Andrea Holland, Retired USFS Colorado
Julie Simpson, Idaho/Nez Perce Tribe
Andrea Boyer, Idaho/Nez Perce Tribe
Kim Sumner, California/Siskiyou County APCD
Susan O'Neil, Washington/USFS Research, Seattle
Janice Peterson, Washington/USFS, Seattle
Gary Curcio, North Carolina/IPA FES-FE Forester, Retired Forester
Colleen Campbell, State of Colorado

The purpose of the Smoke Manager's Sub-Committee is to increase communications amongst the community of air quality professionals, other state and federal governmental agencies, land managers, and other persons conducting burning activities.

Agenda:

Introductions – Claudia Standish

Expectations of today's call & future calls – Claudia Standish

EPA Update - Rick Gillam

Rx burning – what makes it work in Florida? – Tammy Egan and Jim Brenner

Updates on wildfires across the U.S. - All

Round Robin topics - All

Expectations of today's call & future calls – Claudia Standish

- A month ago, we decided to pre-schedule calls so that we have an actual schedule of calls and so that expectations can be made for future calls;

- If you have any interest in topics, leading a discussion or giving a presentation, please contact us and let us know. We want to be inclusive and have dynamic and diverse information.

This group is diverse. By bringing the smoke manager side (regulatory) and the fire management side (burners) together, we will better accomplish our goals.

EPA Regulatory Update (Ozone) – Rick Gillam

- Ozone: EPA is addressing comments and working to finalize the proposed revision of the ozone standard.
 - As far as I know, still on track to have a final rule by October 1, 2015.
- Particulate Matter (PM2.5) Designations
 - Designations of areas not meeting the 2012 Annual PM2.5 NAAQS of 12.0 ug/m3 were finalized on December 18, 2014, and became effective on April 15, 2015.
 - Information available on EPA's website:
<http://www.epa.gov/pmdesignations/2012standards/regs.htm>
 - Revised designations issued on March 31, 2015 based upon new data available after December 2014:
 - EPA is designating five areas as unclassifiable/attainment in the state of Georgia, including two neighboring counties in the bordering states of Alabama and South Carolina that were initially deferred in the EPA's January 15, 2015, rulemaking:
 - Augusta (Richmond County and Columbia County in Georgia and Aiken County in South Carolina)
 - Columbus (Muscogee County in Georgia and Russell County in Alabama)
 - Savannah, Georgia (Chatham County and Effingham County)
 - Valdosta, Georgia (Brooks County and Lowndes County)
 - Washington County, Georgia.
 - EPA is changing the initial designation from nonattainment to unclassifiable/attainment for the following four areas based on the availability of complete, certified 2014 air quality data showing these areas meet the 2012 PM2.5 standard:
 - Canton, Ohio
 - Allentown, Pennsylvania
 - Johnstown, Pennsylvania
 - Cincinnati-Hamilton, Kentucky-Ohio
 - EPA is changing the initial designation from nonattainment to unclassifiable for the Louisville, Indiana-Kentucky area.
- Exceptional Events (schedule has slipped a couple months but still moving forward)
 - Revisions to the 2007 Exceptional Events Rule (EER)
 - We anticipate proposing the EER revisions in late 2015 and promulgating EER revisions in late 2016

- Schedule provides EER changes in advance of implementation activities for any potential new or revised ozone NAAQS
 - Guidance to Support Data Exclusion Requests for Wildfire-Related Events that May Affect Ozone Concentrations
 - Schedule anticipated to parallel EER revision effort
 - Focus on demonstration components and the technical tools available to support EER criteria
- 1998 Interim Policy Updates (No change)
 - No current activity – EPA plans to make updates in future rules (e.g., EE Rule) and then if there are remaining issues that are yet to be addressed, revise policy at some unspecified time in the future
- EPA National Emissions Inventory (NEI) Fire Emissions Data
 - EPA will be using Smartfire2/Bluesky (SF2/BS), as in the 2011 NEI, to estimate EPA emissions for wildland (wild and prescribed (Rx)) fires
 - EPA extended deadline for requested fire activity data until July 15, 2015:
 - Data needed: Location, Size, Start and End Date, Type, FCCS Fuelbed (optional), Duff depth (optional)
 - http://www.epa.gov/ttn/chief/net/2014nei_files/2014_wlf_activitydatarequest_final.pdf
 - 2014 NEI Plan available at:
 - http://www.epa.gov/ttn/chief/net/2014nei_files/2014_nei_plan.pdf
- Presentations from 2015 Emissions Inventory Conference Available on EPA's website at:
 - <http://www.epa.gov/ttn/chief/conference/ei21/index.html#training>

RX burning –What makes it work in Florida? - An Air Regulatory Perspective & Florida Forest Service Perspective - Tammy Egan, Meteorologist, Florida Department of Environmental Protection and Jim Brenner, Fire Management Administrator, Florida Forest Service, Florida Department of Agriculture and Consumer Services

- Florida has a history of fire use and acceptance of fire, and therefore has a good, well established program.
- 1998 extreme fire season (slide 2), fire burned more than 26,000 acres. Most fire starts were 100-150 acres, but the next fire, 6,000 acres, burned to Jacksonville.
- Fires were based on a dry winter (El Nino that year), fuel was primed. Spring brought lightning strikes, resulting in up to 80 fires/day.
- By June 8th, they were getting fires spreading into more counties; along the NE side of state especially, were the largest fires.
- Heat signatures were reported from very large fires along eastern seaboard. Normally the interstate (I-95) would have made a good firebreak, but fire was jumping the interstate.
- By July 4th, fires were so bad that firework displays were canceled over land; only over water were fireworks allowed.

- Majority of fires in north/north-central FL that had adverse health effects (elevated PM10 values) highest between mid-June and July 4th.
- Data from fires: PM10 from our first continuous monitor in Daytona Beach, 2 blocks from evacuation zone, values 400+ ug/m3, level of hazardous starts at 425. Unusual for FL to have anything that high. 10,000ug/m3 was value at times. Filter normally lasts a month, but tech was having to change <24 hours and walked through embers to get to monitor.
- Across the state, PM10 concentrations reported at sites had high enough values that the yearly average was being skewed by the short-term event.
- Data reported on June 28th was collected on manual sampler (they didn't know what was going on in between 6 days timeframe). Values were much higher than standard of 150. Bars are daily averages for each day, but remember, they only got samples every 6 days.
- July 4th slide, 350 ug/m3 value for Daytona, where fire jumped the interstate.
- By July 1st all but 2 counties were involved in fire; it pretty much affected everyone.
- Lots of fire signatures visible in slide. Clouds in photos are smoke plumes.
- About 7,000 acres burned between June 18 & 23, but large acreage burns, totaling 67,000 acres were eventually recorded, with Daytona county reporting the largest acreage affected, and DuVall, where Jacksonville is located, also reported large acreage affected.
- Monitoring network tends to be along the coast and spine where population is.
- One of the things that happened with fire: it solidified with regulatory folks and agency, we had structures, infrastructure, health impacts, as opposed to Rx burns when you can pick and choose when/where/how much burning and smoke will be generated. In many counties where Rx burning was common, it was much easier to control the wildfires. Where Rx burning hadn't been common, it was much harder to control the wildfires.
- 1998 was a watershed year for learning: you can pick the little ones and control them or ignore that and deal with the fires like 1998. Rx burning is supported by agency, talk with Rx burning council.
- Claudia asked if Tammy gets complaints regarding smoke, asked how they respond to complaints about RX burning:
 - Complainants will have a burn across street from them and will call to complain that the monitor is showing data that differs from their exposure; people are frustrated with monitor siting;
 - Most complaints are from entities who are trying to figure out how to get insurance to pay to have my building repainted because Rx burning has affected the paint job.
 - They have set up a system where the public can check to see if there is an authorization in their area so that they can prepare. Also, for those who want to work well within their communities, they will up the outreach, and this has knocked down the rebellion from the communities.
 - If people call with opposition, they give people the explanation, going back to 1998 to describe the impact, uncertainty, and the fact that the Rx fire will be out by sundown by wildfire will not.
 - 1998 before fires got bad, there was a high pressure system across FL, they weren't having any bad fire problems in May, but the Yucatan in Mexico was, and smoke was coming into FL, affected the air quality.
 - Things that affect wildfire: Drought, instability, ignition source – peak fire season activity occurs in mid-June and then begins to recover

- The state is “Pyro-geometrically built”. Wire grass structure is such that the fire moves quickly through the grass so that the rhizomes are not damaged. If it happens at the right time, the grass responds with flowers and seeds. Too late, seed heads are killed. Accident and arson adds to the fire load. Burning under controlled conditions – efforts to control fires replaces fire fighting with fire lighting. Keep the right kind of fire on the ground or flames will fill the vacuum and replace it with the wrong kind of fire.
- “Institutionally combustible.”
- Unless the land is converted to concrete, it will burn; it’s up to people to decide when and how it will burn.
- FL is a leader because it has no choice.
- Discussion about “Superfog” term, maybe “Whiteout” term can be used.
- Mike commented that it seems almost that in order to get public and local backing for routine Rx fire programs, you need a catastrophe? Jim Brenner voiced disagreement, that you can accomplish backing if you have a cultural understanding. Jim authored and Florida passed the Florida 1990 Prescribed Burning Act, revised in 2000, the idea was that if you follow the law, you cannot be held criminally liable for the burn. Hired mitigation specialists, whose job is to get the message out. Our people are so mobile and we get people from all places. In 1996, he started a program called “Fires in FL Ecosystem” which provided tools to teachers to teach grades 4-8 to talk about how fire has shaped the land. Jim commented that the ignorance that teachers had regarding the importance of fire in the ecosystem was surprising; Jim assumed that the science teachers had some knowledge of the benefits of fire in the ecosystem and they clearly did not.
- Jim commented that fire is the hand that shaped the land and the flora and fauna require it. Most of native species in Florida are fire dependant or fire maintained; some flora will spread rampant if fire isn’t a part of the ecosystem.

Updates on wildfires across U.S.:

- In New Mexico, 15,401 acres largest fire being managed for resource objective, smallest 1,540, quite a few in Arizona – no big smoke issues, thankfully.
- In WA, Air Resource specialist, Janice Peterson, is out on Wenache/”Sleepy Hollow” fire.
- In CA there is something small near Yosemite, but nothing huge yet.
- Claudia asked if everyone is aware of smoke blogs. Mike Broughton provided the following:
 - Washington - <http://wasmoke.blogspot.com/>
 - Oregon - <http://www.oregonsmoke.blogspot.com/>
 - California - <http://californiasmokeinfo.blogspot.com/>
 - Idaho - <http://idsmoke.blogspot.com/>
 - US - <http://alg.umbc.edu/usaq/>
- Susan O’Neil commented that Alaska is very active right now (Fairbanks visibility ¼ mile right now) and many places in Pacific NW are prime for fire, smoke could last a long time this summer. Smoke is going over Saskatchewan and over Northern Plains.

Round Robin

- Gary Curcio, PIA, retired forester, has his own company, previously, for 32 years, he was a fire environment forester for North Carolina Forest Service, Fire Behavior Analyst, and saw that one of the opportunities to increase burning opportunities was to address the issue of mixing heights. As a result, he has been working on establishing national methodology for national mixing heights, and has been working on a paper. Claudia is planning on getting him to present on an upcoming call.
 - Gary joined the call, stating that the paper has been submitted for review. They (authors) are addressing reviewers' comments and are waiting for endorsement so that the paper will be published. Gary is anticipating that the paper will be approved and released, published in Journal of Meteorology with recommendation for national standard late July or early August. Hopefully the National Weather Service will take into consideration the dryness/moistness of atmosphere and if in static or active state; there is a better method to utilize/look at the data and determine the depth of the mixing layer. May change the ventilation index determinations.
- Colorado: Coleen – CO had a wet spring, so they have had one resource benefit fire, but not much else.
- Next call:
 - Tuesday, September 29th, 10:00 a.m – 12:00 p.m. MDT
 - Bridge number: (866) 679-7578
 - PASSCODE: 5970141
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